

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF HENDRON WATER DISTRICT)	
FOR (1) A CERTIFICATE OF PUBLIC)	
CONVENIENCE AND NECESSITY AUTHORIZING)	
APPLICANT TO CONSTRUCT AN ELEVATED WATER)	
STORAGE TANK AND WATER LINES; (2) APPROVAL)	
OF FINANCING THE PROPOSED CONSTRUCTION)	
THROUGH THE KENTUCKY INFRASTRUCTURE)	CASE NO. 91-289
AUTHORITY AND AUTHORITY TO INCUR)	
INDEBTEDNESS; (3) APPROVAL OF THE PROPOSED)	
ADJUSTMENT OF RATES AND TARIFFS NECESSARY)	
TO PAY THE INDEBTEDNESS INCURRED; AND (4))	
APPROVAL OF LOANS PREVIOUSLY INCURRED BY)	
THE APPLICANT)	

O R D E R

On September 12, 1991, Hendron Water District ("Hendron") filed its application for Commission approval of a proposed increase in its rates for water service. Commission staff, having performed a limited financial review of Hendron's operations, has prepared the attached staff report containing staff's findings and recommendations regarding Hendron's proposed rates. All parties should review the report carefully and provide any written comments or requests for a hearing or informal conference no later than 15 days from the date of this Order.

IT IS THEREFORE ORDERED that all parties shall have 15 days from the date of this Order to provide written comments regarding the attached staff report or requests for a hearing or informal conference. If no request for a hearing or informal conference is received, then this case will be submitted to the Commission for a decision.

Done at Frankfort, Kentucky this

19th day of December, 1991.

PUBLIC SERVICE COMMISSION


For the Commission

TEST:


Executive Director

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PUBLIC SERVICE
COMMISSION

CASE NO. 91-289

STAFF REPORT

December 12, 1991

Prepared By: Karen Harrod
Public Utility Financial
Analyst, Chief
Water and Sewer Revenue
Requirements Branch
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Public Utility Rate
Analyst
Communications, Water and
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STAFF REPORT
ON
HENDRON WATER DISTRICT
CASE NO. 91-289

A. Preface

On August 14, 1991, Hendron Water District ("Hendron") submitted an application to the Commission seeking approval of its proposed construction, financing and water rates and approval of loans previously incurred by the District. The application was considered filed on September 12, 1991. The proposed rates were designed to generate approximately \$156,135 in additional revenues, an increase of 41 percent over test year revenues from water sales of \$381,287.

In order to evaluate the requested increase, the Commission Staff ("Staff") would ordinarily perform a limited financial review of the utility's operations for the test period, calendar year 1990. However, in this instance, Hendron requested and received Staff assistance in filing its application. As a result, the field review procedures were performed prior to the filing of the application. Karen Harrod, of the Commission's Division of Rates and Tariffs, conducted the review at Hendron's office in Paducah, Kentucky on March 11-12, 1991. Nicky Moore, of the Commission's Research Division, performed his review of the billing analysis at the Commission's office in Frankfort, Kentucky.

The findings of Staff's review have been reduced to writing in this report. Mr. Moore is responsible for the sections related to operating revenues and rate design. The remaining sections of the Staff Report were prepared by Ms. Harrod.

During the course of the review Hendron was advised that all proposed adjustments must be known and measurable to be considered for rate-making purposes. Based upon the findings of this report, Staff recommends that Hendron be authorized to increase its annual operating revenues from water sales by \$135,827.

Scope

The scope of the review was limited to obtaining information to determine whether test-period operating revenues and expenses were representative of normal operations. Insignificant or immaterial discrepancies were not pursued and are not addressed herein.

B. Determination of Adjusted Test Period Operations

Operating Revenues

Hendron's statement of operation filed in its application shows operating revenue from water sales of \$381,287. The billing analysis filed in the application is based on a test period ending December 31, 1990. Staff concurs with the billing analysis, with certain adjustments.

In Exhibit H, Hendron states that the project proposed in this case will provide service to 75 new customers. Based on information received from Hendron, the 75 additional customers have been added to the billing analysis at the average usage for a

5/8 inch x 3/4 inch metered customer and will be billed on Rate Schedule No. 2. The average usage of these customers is 5,198 gallons per month. Based on this usage the 75 new customers will produce annual revenue of \$14,724 at the present rate.

Staff has used the revenue produced by the adjusted billing analysis in its determination of revenue requirements. Under the proposed rate schedule, Hendron's billing analysis will produce operating revenue of \$536,179.

Operation and Maintenance Expenses

For the test year Hendron reported operation and maintenance expenses of \$375,606 which it proposed to increase by \$24,292. The pro forma adjustments to test period expenses are discussed in the following sections of this report.

Salaries and Wages

Hendron reported test year salaries and wages expense of \$68,568. An adjustment was proposed to increase this amount by \$635 to reflect current salary levels. Staff agrees with the calculations supporting this adjustment and therefore, has included the proposed adjustment for rate-making purposes.

Commissioner's Salaries

In its application Hendron reported Commissioner salary expense of \$9,800. At the beginning of the test year Hendron had 5 Commissioners, two of which resigned in July and August of 1990. No one was appointed by the county judge executive to replace those Commissioners. Hendron's proposed level of expense of \$7,200 for Commissioner compensation is based on a designated monthly salary of \$200 for each of three Commissioners. Staff is

of the opinion that this adjustment is known and measurable and should be included in the calculation of Hendron's adjusted operations.

Employee Pensions and Benefits

In its application Hendron reported test year employee pensions and benefits expense of \$4,998. In order to reflect the premiums for employee insurance at the current rates, an adjustment was proposed to increase this expense to a level of \$5,330. Staff has determined that an increase of \$332 would accurately reflect the current level of expense and has included this adjustment accordingly.

Purchased Water

For the test year Hendron reported purchased water expense in the amount of \$167,511. In order to normalize this expense an adjustment was proposed for an increase of \$1,610. Staff concurs with the proposed increase which is based on normalized test year usage of 137,967,058 gallons, line loss of 7%, and a purchase price of \$1.14 per 1,000 gallons.

As previously stated, Hendron has indicated that the proposed construction of water lines would allow Hendron to provide service to approximately 75 new customers. Accordingly, Staff has adjusted test year purchased water expense to include the cost of purchasing water for these new customers. Based on an average

monthly usage of 5,198 gallons the additional purchased water expense would be \$5,735.¹

Based on the aforementioned adjustments, Staff recommends a net increase to test year purchased water expense of \$7,345.

Purchased Power

Hendron reported test year purchased power expense of \$13,647 and proposed a decrease to this expense of \$413. This adjustment was proposed to accurately reflect actual purchased power expense for the test period. Staff agrees with Hendron's calculations and has included a decrease of \$413 in the determination of Hendron's revenue requirement.

Materials and Supplies

In its application Hendron proposed an increase to materials and supplies expense of \$2,000 based on an estimated increase in expenses resulting from the proposed construction. Hendron offered no basis or explanation to support this adjustment. Without any type of calculation showing a correlation between the proposed plant addition and the anticipated increase in materials and supplies expense, Staff was unable to determine the reasonableness of this adjustment. Therefore, Staff recommends the increase be disallowed for rate-making purposes.

¹ Estimated Usage - 75 new customers 4,678,200 gallons
 Adjustment for 7% line loss + .93
 Allowed purchased water 5,030,323 gallons
 \$1.14 per 1,000 gallons x .00114
 Recommended purchased water expense \$ 5,735

Contractual Services

Hendron reported test-year contractual services expense of \$13,584 which it proposes to decrease by \$1,219. This adjustment includes decreases of \$720 for engineering expenses and \$175 for accounting expenses that were actually incurred in 1989 but were paid during the test year. An additional adjustment was made to eliminate a non-recurring accounting charge of \$1,000 for computer operations and advisory services. Increases of \$200 for auditing services and \$476 for annual software maintenance were proposed to reflect the current level of expense for these items.

Staff, after reviewing these adjustments and their supporting calculations, has accepted them and included a net decrease to contractual services expense of \$1,219 in the determination of Hendron's revenue requirement.

Depreciation Expense

Hendron has proposed to increase test-year depreciation expense of \$59,272 by a total of \$18,391. \$17,000 of this adjustment is based on the proposed construction. The remaining \$1,391 increase is to include depreciation on a hand-held computer for meter reading and a boring machine which Hendron intends to purchase.

Staff is of the opinion that it is necessary to include the costs related to the proposed construction in the determination of the pro forma depreciation expense to ensure that rates will be established at a level sufficient to meet Hendron's debt service requirements. Therefore, Hendron's revenues and expenses have been updated to the levels anticipated upon completion of the

proposed construction. Since the adjustments made to test year operations reflect the impact of the proposed construction and the estimated 75 new customers, Staff recommends an increase in depreciation expense be allowed.

Hendron's proposed increase of \$17,000 for depreciation of new construction was based on an estimated total project cost of \$850,000 depreciated over a service life of 50 years. Based on the final engineering cost summary filed in this proceeding, the total cost of constructing the storage tank and water mains is \$690,600. Therefore, it is Staff's recommendation that depreciation on proposed construction be included at a level of \$13,812.²

Staff has reviewed quotes reflecting the actual costs of the computer and boring machine to be \$4,455 and \$2,070, respectively. Hendron proposed to depreciate these items over a period of five years. Since this adjustment meets the rate-making criteria of being known and measurable, Staff recommends an increase to depreciation expense \$1,305.³

Based on the aforementioned adjustments, Staff has increased depreciation expense by \$15,117, to a level of \$74,389.

Amortization Expense

Hendron reported amortization expense of \$54 for the test year. An adjustment was proposed to increase this amount by \$6,000 to allow for the amortization of tank painting expense for

² \$690,600 ÷ 50 yrs. = \$13,812

³ \$4,455 ÷ 5 yrs. = \$891 + \$2,070 ÷ 5 yrs. = \$414 = \$1,305

the new tank. Staff agrees that it would be appropriate to paint the tank every 10 years for maintenance purposes. However, the current customers would be paying this expense twice since they are paying for the initial painting of the tank through the cost of the construction. Therefore, the proposed increase to amortization expense has been disallowed.

Payroll Tax Expense

In its application Hendron proposed to increase payroll tax expense by \$56 to allow for payroll taxes associated with the increased salary expense. Upon reviewing the application, Staff has determined that the correct adjustment should be \$49.⁴ Therefore, Staff has included an increase to test year payroll tax expense of \$49.

Interest Expense

For the test year Hendron reported interest expense of \$43,682. An adjustment was proposed to decrease this amount by \$30,705 to reflect Hendron's current level of interest expense for short term notes of \$12,765 and miscellaneous interest expense of \$212.

In its application Hendron requested Commission approval of three loan agreements that were entered into prior to the test year. Two of the notes are with Peoples First National Bank and

⁴ Salary Increase
FICA rate
Increase

\$ 635
x 7.65%
\$ 49

Trust Company of Paducah ("Peoples Bank") in the principal amounts of \$60,000 and \$100,000 at interest rates of 7% and 7.35%, respectively. These notes were acquired by Hendron to finance the painting of storage tanks, to purchase property for a well field and to extend water lines to new customers. The remaining note is with the Hendron Lions Club in the amount of \$45,000 at an interest rate of 6.75%. This note was acquired to purchase a building used by Hendron. Hendron did not seek Commission approval prior to making the loan commitments.

The notes with Peoples Bank are demand notes, renewable every 360 days. Based on another adjustment included in this application, Hendron intends to have these notes paid off in ten years. To date, Hendron has only paid the interest expense associated with these notes, with no payments being made to reduce the principal balance.

It should be noted that water districts are not-for-profit entities and have only revenues from water sales and interest income with which to operate. Therefore, it is not likely that Hendron will be able to repay this debt unless a provision for principal is included in its revenue requirement. However, although Commission approval to incur these debts was not obtained, Staff recommends that Hendron be allowed to recover through rates, the funds required to retire this debt since these notes were made for legitimate expenses of the utility. Accordingly, a provision for the annual principal and interest payments on these notes has been included in the Revenue Requirements Determination section of this report.

The note with the Hendron Lions Club, dated June 20, 1988, was set up as a demand note, renewable every two years. Hendron had sufficient funds to make the minimum principal and interest payments on this note during the test year and in the previous year. If Hendron continues to make the minimum principal payments, this note will be paid in full in 1993. Accordingly, it will be paid in less than the aggregate 6 years from the date of original issue and, therefore, would not be subject to Commission approval as set forth in KRS 278.300. In the calculation of Hendron's adjusted operations, Staff has included the average interest expense for this note in the amount of \$1,215⁵ in the calculation of Hendron's adjusted operations.

Based on the aforementioned discussion Staff recommends decreasing test year interest expense to a level of \$1,427.⁶

Principal Expense

Hendron proposed an adjustment to its operating expenses to allow for sufficient funds to retire the principal balance of outstanding notes with Peoples Bank over a period of 10 years. In

5	<u>Year</u>	<u>Interest Expense</u>
	1991	\$ 1,822.50
	1992	1,215.00
	1993	607.50
	Total	\$ 3,645.00
		+ 3
	3-year Average	<u>\$ 1,215.00</u>

6	Hendron Lions Club Interest Expense	\$1,215
	Miscellaneous Interest Expense	212
	Total Interest Expense	<u>\$1,427</u>

accordance with generally accepted accounting principles, payments for principal should not be reported on the income statement but, rather, should be reflected as a balance sheet item. Accordingly, Staff recommends this adjustment be disallowed for rate-making purposes as proposed. However, as previously discussed, Staff has included a provision to allow for the retirement of this debt in the calculation of Hendron's revenue requirement.

Operations Summary

Based on the recommendations of Staff contained in this report, Hendron's operating statement would appear as follows:

	<u>Test Year Actual</u>	<u>Recommended Adjustments</u>	<u>Test Year Adjusted</u>
Operating Revenues:			
Water Sales	\$381,287	\$ 14,662	\$395,949
Forfeited Discounts	6,240		6,240
Miscellaneous Service Revenues	6,960		6,960
Total Operating Revenues	<u>\$394,487</u>	<u>\$ 14,662</u>	<u>\$409,149</u>
Operating Expenses:			
Salaries & Wages	\$ 68,568	\$ 635	\$ 69,203
Commissioner's Salaries	9,800	<2,600>	7,200
Pensions & Benefits	4,998	332	5,330
Purchased Water	167,511	7,345	174,856
Purchased Power	13,647	<413>	13,234
Chemicals	376		376
Materials & Supplies	8,999	-0-	8,999
Contractual Services	13,584	<1,219>	12,365
Transportation Expense	3,628		3,628
Insurance	9,962		9,962
Bad Debt Expense	1,115		1,115
Miscellaneous	7,086		7,086
Depreciation Expense	59,272	15,117	74,389
Amortization Expense	54		54
Payroll Taxes	6,545	49	6,594
Regulatory/Assessment Fees	461		461
Total Operating Expenses	<u>\$375,606</u>	<u>\$ 19,246</u>	<u>\$394,852</u>

Operating Income	\$ 18,881	\$ <4,584>	\$ 14,297
Interest Income	9,168		9,168
Interest Expense	<u>43,682</u>	<u><42,255></u>	<u>1,427</u>
Income Available for Debt Service	<u>\$<15,633></u>	<u>\$ 37,671</u>	<u>\$ 22,038</u>

C. Revenue Requirements Determination

Staff has calculated Hendron's average annual debt service to be \$112,378.⁷ This includes existing debt and the proposed annual debt payment related to the proposed construction. In the event approval for any portion of the construction is not obtained, the recommendations contained herein related to financing and expenses for the construction would change accordingly. Assuming the construction is approved, Staff recommends that the additional debt be included in revenue requirements in order to fund the proposed construction. Based on the adjusted test-period operations, Hendron's debt service coverage ("DSC") is .19x.⁸ Staff is of the opinion that a DSC of 1.2x is necessary to allow Hendron to meet its operating expenses, service its debt, and provide for reasonable equity growth. Therefore, Staff recommends an allowance for a 20% DSC or \$22,475.⁹

⁷	Existing Debt (5-year average)	\$ 42,378
	Proposed Debt	70,000
	Total	<u>\$112,378</u>
⁸	\$22,038 + \$112,378 = .19.	
⁹	Average Annual Debt Service	\$112,378
	20% DSC	x .20
	Debt Service Coverage	<u>\$ 22,475</u>

An adjustment has also been recommended by Staff to include the average annual debt service required to repay outstanding notes to People's Bank that have not been approved by the Commission. In its application Hendron proposed annual principal payments of \$11,500 plus annual interest of \$11,550 to retire these notes in 10 years. Staff has calculated the annual principal and interest payments to be \$8,543 and \$14,469 for the outstanding notes of \$60,000 and \$100,000, respectively. This results in an increase to Hendron's annual revenue requirement of \$23,012.

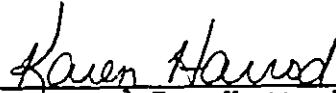
In summary, Staff recommends that Hendron be allowed to increase its annual revenues by \$135,827, calculated as follows:

Adjusted Operating Expenses	\$394,852
Other Interest Expense	1,427
Annual Debt Service	112,378
20 Percent DSC	22,475
Notes Payable to Peoples Bank	23,012
Total Revenue Requirement	<u>\$554,144</u>
Less: Operating Revenues	409,149
Interest Income	<u>9,168</u>
Required Increase	<u><u>\$135,827</u></u>

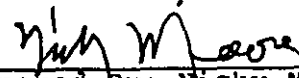
D. Rate Design

Hendron filed a schedule of its existing and proposed rates and did not propose any changes in the rate structure. The Staff agrees that the present rate structure should not be altered. Therefore, any increase granted in the case has been added to the existing rates. The Staff recommends that the rates in Appendix A, attached hereto and incorporated herein, be approved for services rendered.

E. Signatures



Prepared By: Karen Harrod
Public Utility Financial
Analyst, Chief
Water and Sewer Revenue
Requirements Branch
Rates and Tariffs Division



Prepared By: Nicky Moore
Public Utility Rate
Analyst
Communications, Water and
Sewer Rate Design Branch
Research Division

APPENDIX A
TO STAFF REPORT CASE NO. 91-289

The Staff recommends the following rate be prescribed for customers of Hendron Water District.

SCHEDULE NO. 1

Rates: Applicable within the service area of the Hendron Water District, described as project #APW-KY-140-GL (PLF-KY-90, a map of which is on file in the utility office.)

5/8 Inch x 3/4 Inch Meter

Rates

First	2,000 gallons	\$7.30 Minimum Bill
Next	3,000 gallons	3.55 per 1,000 gallons
Next	5,000 gallons	3.20 per 1,000 gallons
Next	10,000 gallons	2.75 per 1,000 gallons
Next	30,000 gallons	2.65 per 1,000 gallons
Next	50,000 gallons	2.45 per 1,000 gallons
Over	100,000 gallons	2.35 per 1,000 gallons

3/4 Inch Meter

First	3,500 gallons	\$12.63 Minimum Bill
Next	1,500 gallons	3.55 per 1,000 gallons
Next	5,000 gallons	3.20 per 1,000 gallons
Next	10,000 gallons	2.75 per 1,000 gallons
Next	30,000 gallons	2.65 per 1,000 gallons
Next	50,000 gallons	2.45 per 1,000 gallons
Over	100,000 gallons	2.35 per 1,000 gallons

1 Inch Meter

First	5,000 gallons	\$17.95 Minimum Bill
Next	5,000 gallons	3.20 per 1,000 gallons
Next	10,000 gallons	2.75 per 1,000 gallons
Next	30,000 gallons	2.65 per 1,000 gallons
Next	50,000 gallons	2.45 per 1,000 gallons
Over	100,000 gallons	2.35 per 1,000 gallons

1 1/2 Inch Meter

First	10,000 gallons	\$33.95 Minimum Bill
Next	10,000 gallons	2.75 per 1,000 gallons
Next	30,000 gallons	2.65 per 1,000 gallons
Next	50,000 gallons	2.45 per 1,000 gallons
Over	100,000 gallons	2.35 per 1,000 gallons

2 Inch Meter

First 20,000 gallons	\$61.45 Minimum Bill
Next 30,000 gallons	2.65 per 1,000 gallons
Next 50,000 gallons	2.45 per 1,000 gallons
Over 100,000 gallons	2.35 per 1,000 gallons

SCHEDULE NO. 2

Rates: Applicable within the service area of the Hendron Water District, described as project (PFL-KY-206, a map of which is on file in the utility office.)

5/8 Inch x 3/4 Inch Meter

Rates

First 2,000 gallons	\$10.30 Minimum Bill
Next 3,000 gallons	3.55 per 1,000 gallons
Next 5,000 gallons	3.20 per 1,000 gallons
Next 10,000 gallons	2.75 per 1,000 gallons
Next 30,000 gallons	2.65 per 1,000 gallons
Next 50,000 gallons	2.45 per 1,000 gallons
Over 100,000 gallons	2.35 per 1,000 gallons

3/4 Inch Meter

First 3,500 gallons	\$15.63 Minimum Bill
Next 1,500 gallons	3.55 per 1,000 gallons
Next 5,000 gallons	3.20 per 1,000 gallons
Next 10,000 gallons	2.75 per 1,000 gallons
Next 30,000 gallons	2.65 per 1,000 gallons
Next 50,000 gallons	2.45 per 1,000 gallons
Over 100,000 gallons	2.35 per 1,000 gallons

1 Inch Meter

First 5,000 gallons	\$20.95 Minimum Bill
Next 5,000 gallons	3.20 per 1,000 gallons
Next 10,000 gallons	2.75 per 1,000 gallons
Next 30,000 gallons	2.65 per 1,000 gallons
Next 50,000 gallons	2.45 per 1,000 gallons
Over 100,000 gallons	2.35 per 1,000 gallons

1 1/2 Inch Meter

First 10,000 gallons	\$36.95 Minimum Bill
Next 10,000 gallons	2.75 per 1,000 gallons
Next 30,000 gallons	2.65 per 1,000 gallons
Next 50,000 gallons	2.45 per 1,000 gallons
Over 100,000 gallons	2.35 per 1,000 gallons

2 Inch Meter

First 20,000 gallons	\$64.45 Minimum Bill
Next 30,000 gallons	2.65 per 1,000 gallons
Next 50,000 gallons	2.45 per 1,000 gallons
Over 100,000 gallons	2.35 per 1,000 gallons